**Assignment 7**

**Problem**

Write a program that determines whether a string is a palindrome.

NOTE: A palindrome is a string that is the same when read forward and backward, ex. "zerorez", "Madam I'm Adam".

**Specification**

1. Get a string from the user and pass it to a method that does the following:

Skips whitespace characters and punctuation.

Ignores differences in case.

Stores each character of the string in both a stack and a queue.

Determines if the string is a palindrome and outputs an appropriate message.

1. Ask the user to input another string or to quit.
2. Develop a Junit test case to verify the method works properly.

HINT: Since a stack and a queue will store the characters in opposite order, you can easily determine if the string is a palindrome. **(stack is LIFO, and queue is FIFO)**

**Admin**

1. Grading

0 points if your program does not compile.

+5 for comments, indentation and placement of {} per [Style Guide](http://www.cs.slcc.edu/style-guide.shtml).

+5 for each specification met.

1. Submission: An executable JAR file that also contains your .java source code files.

**Extra Credit**

For 10 points extra credit, create a GUI that meets the following criteria

1. A menu bar with File and About menus

File | Exit [exits the application]

About | CS2420 [displays a dialog with an SLCC logo, assignment information, your name]

1. A text field to enter the palindrome string
2. A disabled text field to display an "is/is not palindrome" message
3. Any other controls to make the interface appealing and easy to use

Proj 7 - Palindrome

Grades for this assignment come from the quiz: false  
[**Click here to go to the quiz**](https://slcc.instructure.com/courses/178027/quizzes/%7B%7B%20quiz_id%20%7D%7D)

This assignment is linked to the discussion, false. Grading will be based on posts in the topic.  
[**Click here to go to the discussion**](https://slcc.instructure.com/courses/178027/discussion_topics/%7B%7B%20discussion_topic_id%20%7D%7D)

Problem

Working in pairs, write a program that determines whether a string is a palindrome.

NOTE: A palindrome is a string that is the same when read forward and backward, ex. "zerorez", "Madam I'm Adam".

Specification

1. Use Gray's Stack and Queue data structures. **Yes**
2. Write an application to do the following:
   * Get an input string from the user **yes**.
   * Skipping white space characters and punctuation, **and ignoring differences in case, determine if the input string is a palindrome using the MyStack and MyQueue classes.**
   * **Allow for multiple iterations.**

Admin

1. Grading
   * 0 points if your program does not compile.
   * +5 for comments, indentation and placement of {} per [Style Guide](http://www.cs.slcc.edu/style-guide.shtml).
   * +5 for each specification met.
2. Submission:

* Complete as much of the project as you can in class and submit at the end of class.
* Make sure the names of both students appears in the header comment.
* Attach an executable JAR file that also contains your .java source code files (one student only).